

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellant: James Kenneth McAlpine

Application No.: 10/785,581

Filed: 02/23/2004

Title: FLEXIBLE PIPING CONNECTOR

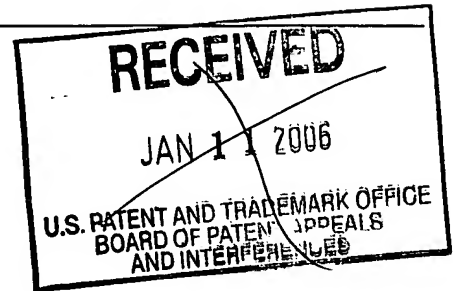
Group Art Unit: 3679

Examiner: Bochna, David e.

Attorney Docket No: MCAJ101CIP

**APPEAL BRIEF (37 CFR §1.192)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450



**ATTENTION:** Board of Patent Appeals and Interferences

This Brief is in furtherance of the Notice of Appeal filed in this case on August 15, 2005.

The fees required under 37 CFR 1.17(f) and any required petition for extension of time for filing this Brief and fees therefore are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

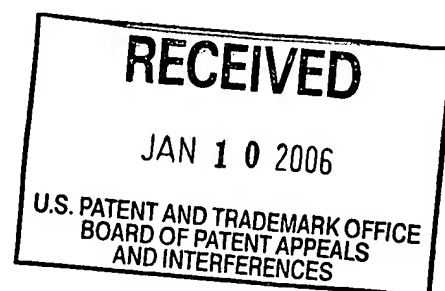
This Brief is transmitted in triplicate (37 CFR §1.192(a)).

**I. REAL PARTY IN INTEREST**

The real party in interest in this case is McAlpine & Company Limited, Glasgow, United Kingdom, who is the Assignee of the patent application.

**II. RELATED APPEALS AND INTERFERENCES**

Appellant and the Appellant's legal representative are not aware of any other Appeals or Interferences that will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.



### III. STATUS OF CLAIMS

The status of the claims in his application are:

A. Total Number of Claims in Application.

Application contains fifteen claims numbered 1- 15.

B. Status of All the Claims.

1. Claims canceled: Claim 14 has been canceled.
2. Claims withdrawn from consideration, but not canceled: None.
3. Claims pending: Claims 1-13, and 15.
4. Claims allowed: None.
5. Claims rejected: Claims 1-13, and 15.

C. Claims on Appeal.

The claims on appeal are: Claims 1-13, and 15.

### IV. STATUS OF AMENDMENTS (37 CFR §1.192(c)(4))

The Amendments filed subsequent to the Final Rejection were entered by the Examiner and the status of each of the claims as a result of these amendments is described above.

### V. SUMMARY OF CLAIMED SUBJECT MATTER (37 CFR §1.192(c)(5))

**[0001]** The present invention is a flexible piping connector, which is used to connect lengths of pipe while plumbing. Page 1, col. 1 line 10-13, paragraph 0002. The present invention is made up of a tubular flexible member 12 and at least two rigid flanking tubular members 20, 22 that are located concentric with and axially displaced on either side of the flexible member 20. The flexible tubular member 20 includes a generally smooth inner surface. Page 2, col. 1 lines 20-25, paragraph 0018, drawings Fig. 1, 4, 6. A rib or protrusion 16 is located within the inner surface 18, and an annular depression 14 which allows for flexing of the connector is positioned on the outer surface of the device opposite the rib. Page 2, col. 1, lines 50-60, paragraph 0025, drawings Fig. 1, 4, 6. The rib 16 in the inner surface provides sufficient projection so as to support the inner bore wall as well as providing a pair of shoulders 18 against which other components of the connector may abut. Page 2, col. 1 lines 50-60, paragraph 0025, drawings Figures 1, 4, 6.

## **VI. GROUND S OF REJECTION**

The examiner has finally rejected all of the remaining claims in the application under 35 USC §102(b) as being obvious in view of the Steele reference, U.S. Pat. No. 5,749,609. Applicant disagrees and therefore appeals this decision.

## **VII. ISSUES (37 CFR §1.192(c)(6))**

A. Whether claims 1-13, 15 are anticipated under 35 USC §102(b) by U.S. Pat. No. 5,749,609 to Steele?

## **VIII. GROUPING OF CLAIMS (37 CFR §1.192(c)(7))**

<u>Group</u>	<u>Claims</u>
A	1-13, 15

## **IX. ARGUMENT (37 CFR §1.192(c)(8)(iv))**

Appellant submits that, for the following reasons, the pending claims 1-13 and 15 are neither disclosed nor taught by the cited reference, and are therefore not anticipated nor rendered obvious by the cited references; and consequently are patentable.

### **A. Claims 1-13 are not anticipated by Steele.**

1. The Examiner rejected claims 1-13 and 15 under §102(b) as being anticipated by Steele. The Examiner maintains that the Steele reference discloses all of the features that are set forth in the claims of the current application.

2. Claims 1-13 all depend upon claim 1, which includes the requirement that the device include a rib within the inner portion of the device. Claim 15 includes this rib feature and also requires that an annular depression exist along the outer surface of the connection device, and that the positioning of this outer surface depression correspond with the positioning of this rib.

3. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 828 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). MPEP § 2131.

4. Claim 1 of the application in its current form includes the limitation that the flexible piping connector has a first end and a second end, a tubular flexible member with a substantially smooth inner bore surface and at least one rib on a portion of an internal surface.

5. The comments related to this amendment clarify that the item being claimed as the rib is the item designated as number 16 in Fig. 4 of the application as filed.

6. The Examiner maintains that the portion of the structure in the Steele reference which extends between the reinforcing bands 13 constitutes a rib as it has been claimed by the Applicant.

7. Applicant respectfully submits that the Examiner has ignored the meaning of the word rib in common American/English usage and that the structure shown in the Steele reference simply is not a rib.

8. A rib is defined in the Merriam-Webster On-Line Dictionary of the English Language as follows:

Main Entry: **<sup>1</sup>rib**

Pronunciation: 'rib

Function: *noun*

Etymology: Middle English, from Old English *ribb*; akin to Old High German *rippi* rib, Old Church Slavonic *rebro*, and probably to Greek *erephein* to roof over

**1 a** : any of the paired curved bony or partly cartilaginous rods that stiffen the walls of the body of most vertebrates and protect the viscera **b** : a cut of meat including a rib -- see **BEEF**

illustration **c** [from the account of Eve's creation from Adam's rib in Gen 2:21-22] : **WIFE**

**2** : something resembling a rib in shape or function: as **a** (1) : a traverse member of the frame of a ship that runs from keel to deck (2) : a light fore-and-aft member in an airplane's wing **b** : one of the stiff strips supporting an umbrella's fabric **c** : one of the arches in Romanesque and Gothic vaulting meeting and crossing one another and dividing the whole vaulted space into triangles

**3** : an elongated ridge: as **a** (1) : a vein of an insect's wing (2) : one of the primary veins of a leaf **b** : one of the ridges in a knitted or woven fabric

9. Implicit with this definition is the meaning that a rib is a portion of an entire body or device which is proportionally smaller or more narrow than the body of the entire piece. This is consistent with the synonyms which are associated with the word such as strip, rod, ridge or vein. This is the definition of the word that comports to the meaning in common use as demonstrated above, and which would be known to a person of skill in the art.

10. This is also the meaning that the writer of the Steele patent used to describe the numerous narrow protrusions 15 which extend from the outer surface of the device in the Steele patent. There are no such ribs on the inner surface portion of the Steele device. The Examiner's finding that the entire inner portion of the Steele device between the two minor grooves constitutes a rib is wholly inconsistent with the use of the word rib in common language as well as the use of this word within the Steele patent itself.

11. The Steele patent simply does not disclose a device that contains a rib within the inner surface of the device. All of the ribs in the Steele patent are located upon the outer surface of the body.

12. In the present invention the rib is smaller than the entire body of the device and this ridge is located within this inner surface of the device. In as much as the Steele device fails to teach each and every feature of the present invention, Applicant respectfully submits that the Steele reference does not anticipate the present invention as set forth in claim 1 and its associated dependent claims.

**B. Claim 15 is not anticipated by Steele.**

13. With regard to claim 15, claim 15 includes the feature of a rib which was set forth above and also includes the as amended limitation of an annular depression in the outer surface, which corresponds to the location of the ridge located within the inner surface of the device.

14. The Steele reference fails to teach or include this feature. The Steele reference teaches the presence of depressions located within the outer surface of the Steele device so as to define the upwardly projecting ribs. However, the Steele reference fails to teach the inclusion of any such annular rib or projection within the inner surface. Furthermore, the smaller depressions in the outer surface do not each individually correspond to a projection in the inner surface so as to align along the same axis, as the language of the claim requires. Therefore, the Steele reference does not anticipate the present invention as the Examiner has asserted.

15. In view of the aforementioned comments and arguments, Applicant respectfully requests that the Examiner's rejection be withdrawn and the claims of the application passed for allowance.

**C. Conclusion of Argument**

Appellants submit that the Steele reference cited by the Examiner does not include each and every feature of claims 1-13 and 15, and therefore these claims are not anticipated by the prior art. Applicant therefore submits that the Examiner's rejection of these claims are improper and should be overturned by the Board.

Reconsideration and allowance of the application is respectfully requested.

DATED this 5<sup>th</sup> day of January 2006.

Very respectfully,



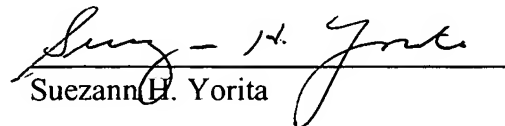
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CERTIFICATE OF MAILING

I HEREBY CERTIFY that this correspondence is being deposited with the United States Postal Service on the below date as first class mail in an envelope addressed to:

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

DATE: January 5, 2006



Suezann H. Yorita

**X. APPENDIX OF CLAIMS (37 CFR 1.192(c)(9))**

The text of the claims on appeal is as follows:

1. Bath overflow piping for connecting a bath overflow to a bath waste water pipe, the overflow piping comprising:

a flexible piping connector having a first end and a second end and comprising a tubular flexible member having a substantially smooth inner bore surface, the flexible piping connector further including at least one rib on a portion of an internal surface;

a pipe section connected at a first end with the first end of the connector, the pipe section being adapted to be connected at a second end to a bath waste water pipe; and

an overflow attachment adapted for connecting the second end of the connector to an overflow outlet on a bath.

2. Bath overflow piping according to claim 1, wherein the flexible piping connector further comprises at least two flanking rigid tubular members located concentric with and axially displaced either side of the flexible member.

3. Bath overflow piping according to claim 2, wherein the connector is adapted to prevent curvature of the flexible member above a selected angle.

4. Bath overflow piping according to claim 3, wherein the connector is adapted to only permit curvature of the flexible member between 0 and 15 degrees.

5. Bath overflow piping according to claim 3, wherein the rigid tubular members are located such that the rigid members will interfere with one another above said selected angle.
6. Bath overflow piping according to claim 1, wherein the flexible member comprises an elastomeric material.
7. Bath overflow piping according to claim 1, wherein the flexible member includes a weaker section to facilitate flexion of the material.
8. Bath overflow piping according to claim 2, wherein the flexible member and rigid members in combination define a smooth inner bore surface.
9. Bath overflow piping according to claim 1, wherein the flexible member includes a predefined flexion location, where the member will preferentially flex.
10. Bath overflow piping according to claim 9, wherein the predefined flexion location takes the form of a weakening in material making up the flexible member.
11. Bath overflow piping according to claim 9, wherein the flexion location comprises one of an annular ridge and an annular depression around a circumferential section of the flexible member.



12. Bath overflow piping according to claim 11, wherein an external depression is formed on the flexible member.
13. Bath overflow piping according to claim 1, wherein the pipe section is of a plastics material.
14. Canceled

15. Bath overflow piping for coupling a bath overflow outlet to bath waste outlet piping, the overflow piping comprising:

a flexible piping connector having a first end and a second end, and comprising a tubular flexible member having a substantially smooth internal surface, the tubular flexible member having an external surface defining an annular depression, and an internal surface defining an annular rib, the annular depression and the annular rib being at the same axial location, the first end being adapted for coupling to bath waste outlet piping and the second end being adapted for coupling to a bath overflow outlet.

## XI. EVIDENCE APPENDIX

Main Entry: **<sup>1</sup>rib**

Pronunciation: 'rib

Function: *noun*

Etymology: Middle English, from Old English *ribb*; akin to Old High German *rippi* rib, Old Church Slavonic *rebro*, and probably to Greek *erephein* to roof over

**1 a** : any of the paired curved bony or partly cartilaginous rods that stiffen the walls of the body of most vertebrates and protect the viscera **b** : a cut of meat including a rib -- see BEEF

illustration **c** [from the account of Eve's creation from Adam's rib in Gen 2:21-22] : WIFE

**2** : something resembling a rib in shape or function: as **a** (1) : a traverse member of the frame of a ship that runs from keel to deck (2) : a light fore-and-aft member in an airplane's wing **b** : one of the stiff strips supporting an umbrella's fabric **c** : one of the arches in Romanesque and Gothic vaulting meeting and crossing one another and dividing the whole vaulted space into triangles

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**b** : one of the ridges in a knitted or woven fabric

Merriam-Webster On-Line Dictionary of the English Language,

<http://www.m-w.com/dictionary/rib>

**XII. RELATED PROCEEDINGS APPENDIX**

NONE